



MUSINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

**UNIVERSITY SUPPLEMENTARY/ SPECIAL EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER SPECIAL/SUPPLEMENTARY
EXAMINATIONS**

**FOR THE DEGREE
OF
BACHELOR OF TECHNOLOGY
IN BUILDING CONSTRUCTION**

COURSE CODE: BTB 431

**COURSE TITLE: CONSTRUCTION COST ESTIMATIONING AND
ANALYSIS II**

DATE: 7TH OCTOBER

TIME: 9 – 11 A.M

INSTRUCTION TO CANDIDATES

- **This paper consists of TWO sections, A and B**
- **Answer ALL questions in section A and any ONE question from section B**
- **Marks for each question are as indicated**
- **No unauthorized materials are allowed in the examination room**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over.

SECTION A (ANSWER ALL QUESTIONS – 40 Mark)**Question One**

- a) Define the following common terms in structural quantities measurements. (7 marks)
- 1) Standard Methods of Measurements
 - 2) Take-off
 - 3) Quantities
 - 4) Preliminaries
 - 5) Variations
 - 6) Bills of Quantities
 - 7) Ditto/do
- b) Outline the essential factor that should always be considered and applied to follow good established measurement practice. (7 marks)
- c) Describe in detail what a dimension paper. (4 marks)
- d) Describe what a Quarry sheet. (4 marks)
- e) What do these standard abbreviations stand for? (5 mark)
- 1) conc.
 - 2) a.b
 - 3) a.b.d
 - 4) n.e
 - 5) bldg.
 - 6) B.S
 - 7) Bwk
 - 8) Ddt
 - 9) b & j
 - 10) Bott.
- f) Outline the order of “taking off” any building structure would probably be followed. (13 marks)

SECTION B (ANSWER ANY ONE QUESTION)**Question Two**

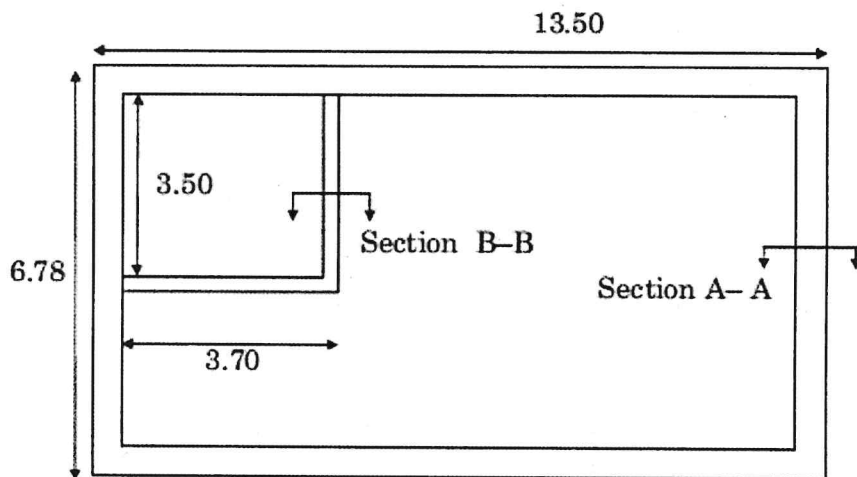
In detail, write the take off for substructure shown in Figure 1. (30 marks)

Note that the cavity fill should stopped at least 225 mm below the base of the dpc and the dpc overlap should be 150 mm.

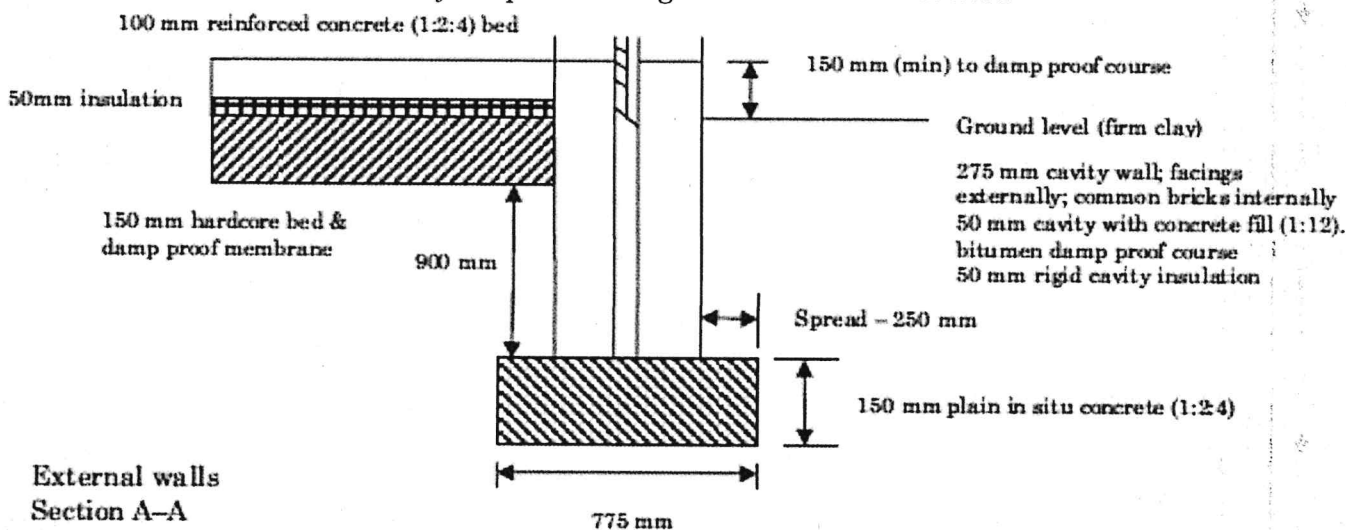
Question Three

Figure 2 shows the floor plan for a superstructure. Prepare the take off for the walls. (30 marks)

Take note that the external blockwork is size 215 x 102.5 x 65 mm, joint mortar thickness is 10 mm and lightweight blockworks is size 440 x 215 x 100 mm. Plaster works should note be included in the measurements.



Ground floor plan showing external and internal walls



External walls
Section A-A

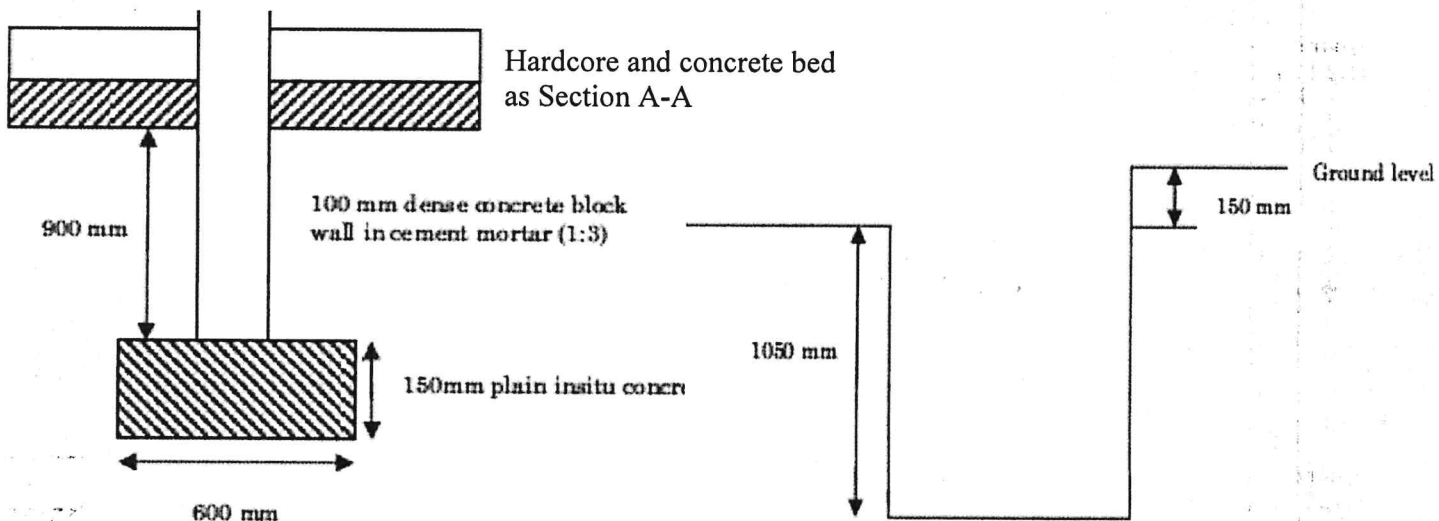
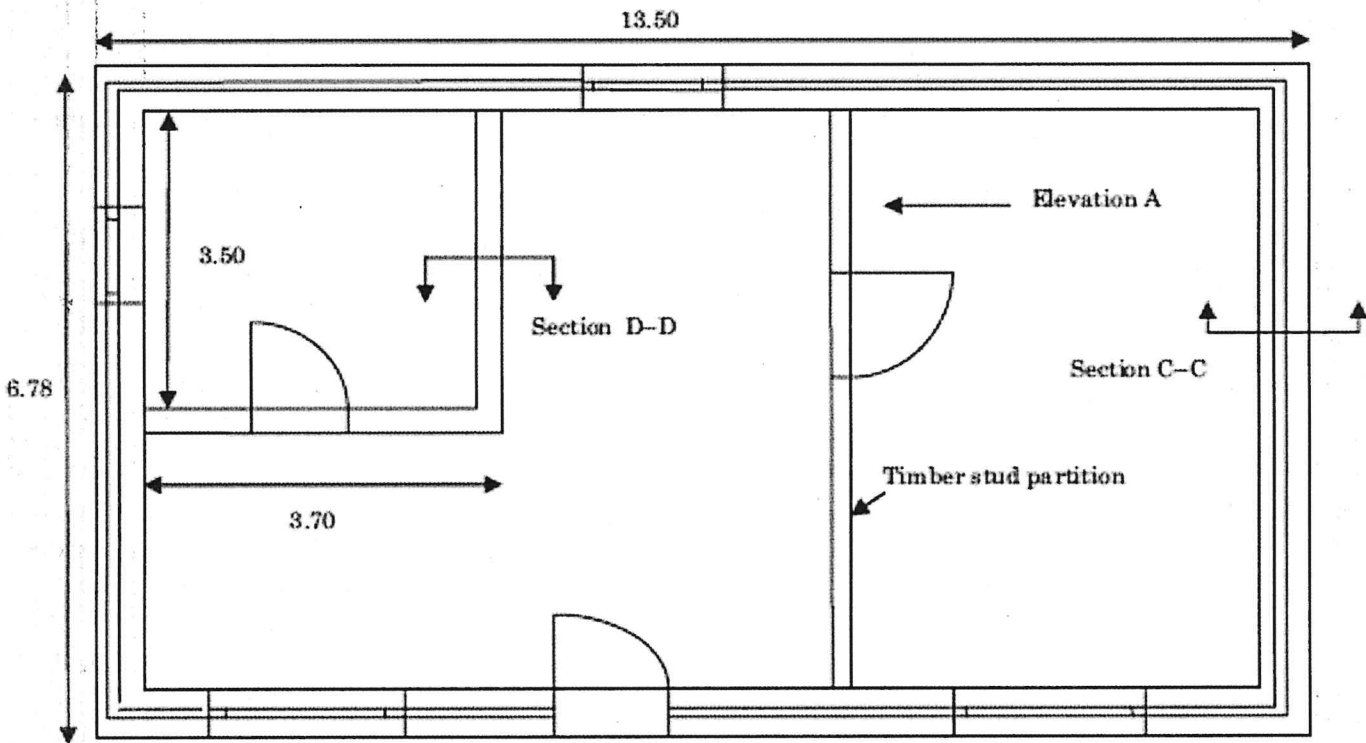
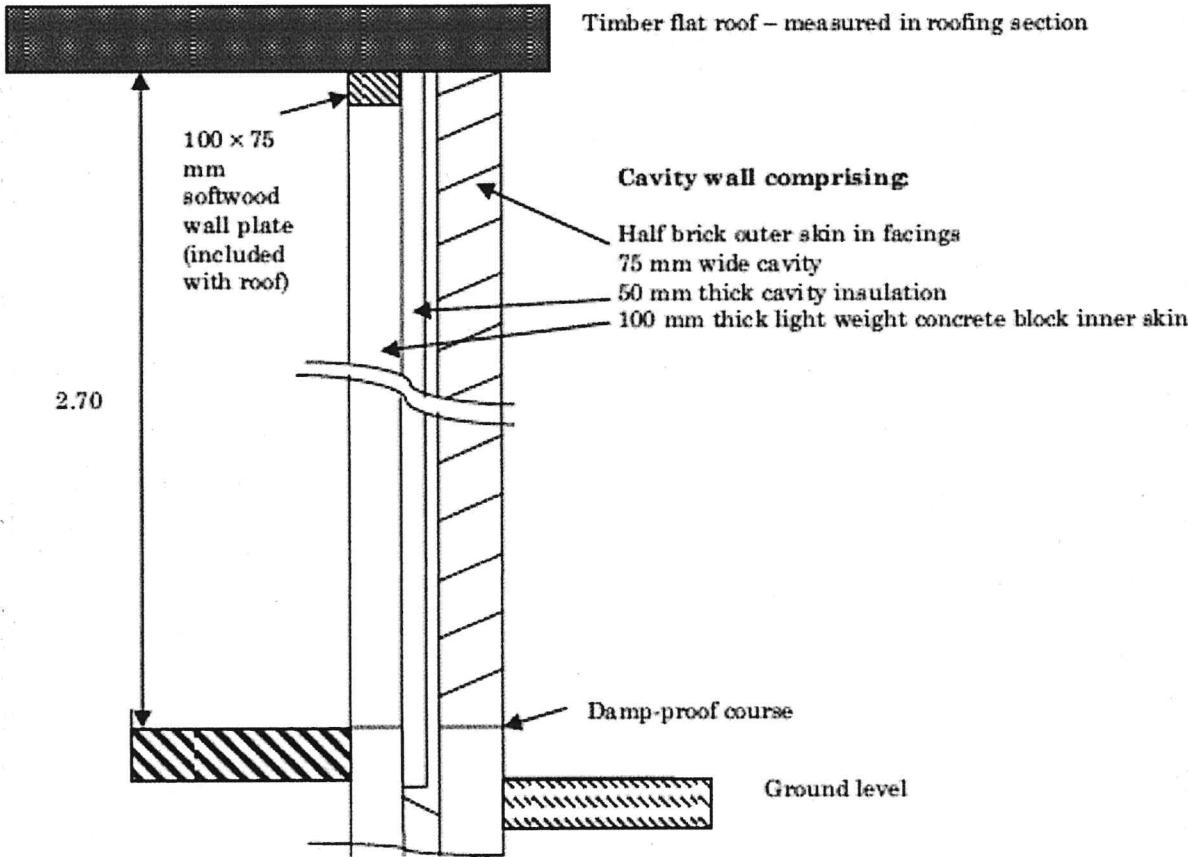


Figure 1 Substructure plan and section details



Plan showing external and internal walls



Section C-C (Figure 2 Continue on next page)

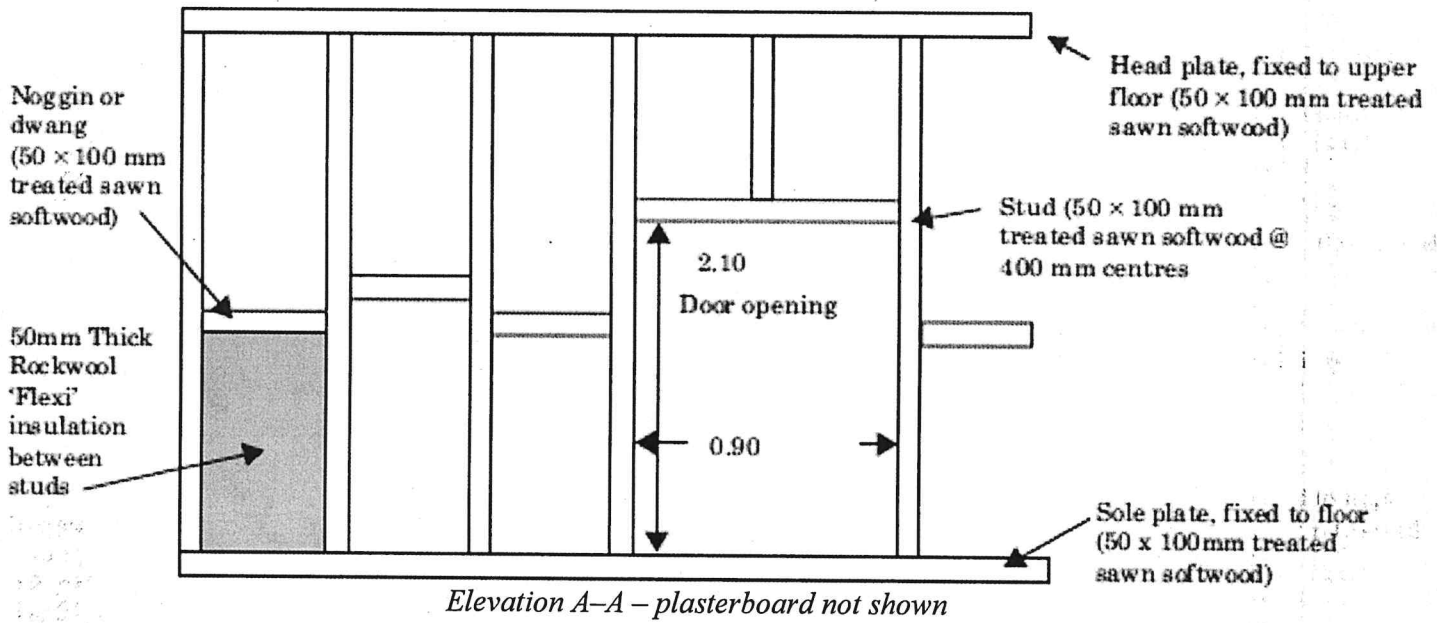


Figure 2

